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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,934	10/30/2003	Xinming Shao	2448-000011	1038
27572	7590	10/03/2005		
HARNESSE, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303				
			EXAMINER	
			KRAMER, DEVON C	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

*He*

**Office Action Summary**

Application No.

10/696,934

Applicant(s)

SHAO ET AL.

Examiner

Devon C. Kramer

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,9,14-16,23 and 25-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-8,10-13,17-22 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/16/05 + 6/1/05
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/22/05 has been entered.

### ***Claim Objections***

2) Claims 13, 17-22 and 24 are objected to because of the following informalities:

Claim 13 lines 10, 12, "said at least one second friction elements" should be – said at least one second friction members--;

Claim 13 line 12, "backup" should be –backing--. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

3) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4) Claims 1, 4-8, 11-13, 17-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumpkin (6244396) in view of Shibata et al (4926978).

In re claims 1, 4-9, 11, 13 and 17-22, Lumpkin provides a brake pad (10) having a backing member (18) comprising: at least one first friction element (40) formed of a first friction material, at least one discrete second friction element (44) formed of a second friction material, the first friction element spaced from the second friction element, both friction elements being connected to the backing plate to form the brake pad, the first and second friction elements being interchangeable to achieve a desired frictional characteristic (abstract). Please note that the method is inherent to the structure. The friction elements of Lumpkin can be arranged so either the first or the second friction elements can be on either the inboard or outboard locations of the backing member. Lumpkin lacks the specific friction materials claimed.

Shibata et al teaches the use of a peripheral first friction lining containing a non-asbestos organic material and a central second friction lining as a semi-metallic material, both friction materials having about the same hardness. (Col. 3 lines 10-34, Col. 5 lines 34-42).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the friction materials of Lumpkin with those as taught by Shibata et al in order to improve the friction characteristics of the pad and improve the braking properties depending on the environment of use.

Lumpkin as modified by Shibata lack disc shaped friction elements or the friction elements spaced from one another.

Sugita et al teaches disc shaped friction elements (13a) spaced from one another.

It would have been obvious to have made the friction elements of Lumpkin as modified by Shibata et al disc shaped as taught by Sugita et al merely as a design choice and since it has been held that a change in shape is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) Further, disc shaped elements allow cooling air to pass around the friction surfaces thereby cooling the brake.

In re claims 12 and 24, Lumpkin as modified by Shibata lacks the teaching of the pad shaped as an indicia of source.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have made the pad of Lumpkin as modified by Shibata in the shape of an indicia of source, since it has been held that matters relating to ornamentation only, which have no mechanical function, cannot be relied upon to patentably distinguish the

claimed invention from the prior art. *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947)

### ***Response to Arguments***

5) Applicant's arguments filed 9/22/05 have been fully considered but they are not persuasive. Applicant states that Lumpkin does not teach the friction elements being interchangeable. Please see column 4 lines 40-45. Please note that Sugita et al teaches the friction materials spaced from each other. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

6) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C. Kramer whose telephone number is 571-272-7118. The examiner can normally be reached on Mon-Fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DK

Devon C Kramer  
Examiner  
Art Unit 3683

*Devon*  
DEVON C. KRAMER  
PATENT EXAMINER

9/28/05